



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,280	01/10/2006	Christine Linke	2002P01602WOUS	8863

46726 7590 05/07/2010
BSH HOME APPLIANCES CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
100 BOSCH BOULEVARD
NEW BERN, NC 28562

EXAMINER

SMITH, RICHARD A

ART UNIT	PAPER NUMBER
----------	--------------

2841

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

05/07/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

NBN-IntelProp@bshg.com

Office Action Summary	Application No. 10/540,280	Applicant(s) LINKE ET AL.	
	Examiner R. Alexander Smith	Art Unit 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13, 14, 18-33 and 35-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32, 33 and 35-37 is/are allowed.
- 6) ☒ Claim(s) 13, 14 and 18-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Withdrawal of Finality of Last Office Action, and Entry of the After-Final Amendment D

1. In further reconsideration of applied rejection to claims 25-28 in the final Office action mailed March 4, 2009, the finality is withdrawn and a new non-final Office action follows.
2. Furthermore in accordance with MPEP 706.07(e), the amendment after final filed on June 1, 2009 (i.e., Amendment D) has been entered.

Appeal Brief

3. Although moot given the above withdrawal of finality, the Appeal Brief filed August 5, 2009 has a cover sheet which indicates that the Appeal Brief was filed pursuant to 37 CFR 1.192. The applicant should note that the new rules governing the appeal brief are under 37 CFR 41.37(c) and it appears to the examiner that the appeal brief itself is in compliance. However, given the cover letter the examiner requests any future correspondence on such be consistent.

If needed, the consolidated rules can be found at:

http://www.uspto.gov/web/offices/pac/mpep/consolidated_rules.pdf

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 13, 14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,161,557 to Suzuki et al.

Suzuki et al. discloses a temperature-indicating element for a refrigeration device (column 5 lines 22-24), comprising:

Claim 13, a backing (14); a thermochromic layer applied to said backing for indicating a predetermined desired temperature; and (12 and 14), and said thermochromic layer enclosed between said backing and a transparent protective layer (16),

Claim 14, including said transparent layer formed from a casting compound (see column 9, lines 33-41, column 13 lines 24-26 and 51-59) that is a selected one of a plastic room temperature curable material, a polyurethane material, and a vacuum treated material which is then cured (In this case a plastic room temperature curable material, see lines 51-59 and "is dried for 12 hours in the atmosphere at 20°-25°C", i.e., at 68-77°F)

Claim 19, the backing being enclosed between the casting compound and a film (the film being the adhesive layer 18).

6. Claims 13 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,738,549 to Plimpton.

Art Unit: 2841

Plimpton discloses a temperature-indicating element, comprising:

Claim 13, a backing (30); a thermochromic layer (20a-k) applied to said backing for indicating a predetermined desired temperature; and said thermochromic layer enclosed between said backing and a transparent protective layer (the upper portion of the casing material column 4, lines 51-54).

Claim 20, said backing embedded in a backing element and covered by said transparent layer (column 4, lines 47-56).

With respect to claim 13: The Applicant should note that the preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2841

8. Claims 14 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plimpton.

a. Plimpton teaches all that is claimed as discussed in the above rejections of claims 13 and 20; and, further teaches:

In claim 14, said transparent layer formed from a casting compound (by being placed in a mold, then filled and allowed to cure, see column 4 lines 47-66), and teaches that the casing material should have certain characteristics (see column 3 lines 48-62 and column 2 lines 20-27) and teaches that one such material is an unsaturated polyester in monomer which is cured by a suitable agent such as methyl ethyl ketone peroxide (column 3 lines 62-64 and column 2 lines 24-25).

Claim 19, said backing enclosed between said casting compound and a film (via the insertable inlays or the advertising indicia as a plate or strip 50, column 4 line 59 to column 5 line 2),

Claim 21, including said film printed on the side facing said casting compound (so that the advertising can be seen),

Claim 22, including a preferred orientation mark (the advertising indicia and the thermochromic indicia are orientation marks so that the device can be mounted to read the text right side up),

With respect to claims 22 and "for mounting said element in the refrigeration device":
This intended use has not been given any patentable weight since it has been held that a

Art Unit: 2841

recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Plimpton does not teach:

In claim 14, said casting compound being a selected one of a plastic room temperature curable material, a polyurethane material, and a vacuum treated material which is then cured.

Claim 18, said backing formed from an aluminum metal plate.

With respect to claim 14 and said casting compound being a selected one of a plastic room temperature curable material, a polyurethane material, and a vacuum treated material which is then cured: As noted above, Plimpton discloses that a casting compound can be used which meets certain characteristics (see column 3 lines 48-62 and column 2 lines 20-27). Therefore, the limitations of the casting compound being a selected one of said materials, as claimed by Applicant, are only considered to be the use of "optimum" or "preferred" materials that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide to make the casting compound material disclosed by Plimpton since they are well known types of materials used to make casting compounds and since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention. In re Leshen, 125 USPQ 416. In this case, an easily used casting compound material which meets the needed characteristics taught by Plimpton.

With respect to claim 18, Plimpton discloses that the backing (30) can be a strip of any suitable material such as plastic (column 3 lines 21-22), that the advertising can be provided on a plate or strip (50), and that the casing can be made from a number of synthetic materials (column 2 lines 20-27). Therefore, the Applicant's limitations regarding the backing being aluminum metal plate, absent any criticality, is only considered to be the use of "optimum" or "preferred" materials that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide to make the backing disclosed by Plimpton since they are well known types of materials used to make backings and since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention, In re Leshen, 125 USPQ 416. In this case in order to provide a backing of a suitable material that conducts heat evenly between the plural display portions so to help prevent different possible temperature readings.

9. Claims 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plimpton in view of US 6,385,869 to MacWilliams et al.

Plimpton teaches all that is claimed as discussed in the above rejections of claims 13 and 20 except for in claim 23 said thermochromic layer provided with an orientation mark discernible at room temperature, and, in claim 24 said film provided with a complementary mark complementary to said orientation mark of said thermochromic layer.

MacWilliams et al. discloses a label and method for applying wherein the label (700) includes alignment features (703 and 704) having corresponding features on the underlying member (column 6 lines 26-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add an orientation mark and a complementary mark, as taught by MacWilliams et al., to the individual thermochromic portions (20a-k) and the backing in order to assure correct orientation of the portions to the backing, as suggested by the teachings of MacWilliams et al.

10. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,738,549 to Plimpton in view of GB 2,318,870 to Hicken.

Plimpton discloses a device, comprising:

In claim 25, a temperature-indicating element, said temperature indicating element including a backing (30); a thermochromic layer (20a-k) applied to said backing for indicating a predetermined desired temperature; and said thermochromic layer enclosed between said backing and a transparent protective layer (the upper portion of the casing material column 4, lines 51-54), said transparent layer formed from a casting compound (by being placed in a mold, then filled and allowed to cure).

Claim 27, said backing enclosed between said casting compound and a film (via the insertable inlays or the advertising indicia as a plate or strip 50, column 4 line 59 to column 5 line 2).

Art Unit: 2841

Claim 28, including a preferred orientation mark (the advertising indicia and the thermochromic indicia are orientation marks so that the device can be mounted to read the text right side up) for mounting said element in the device,

Furthermore, Plimpton discloses said backing embedded in a backing element and covered by said transparent layer (column 4, lines 47-56); and, that liquid crystal agents can be chosen that work from 15°F to 160°F (i.e., below freezing, column 2, lines 15-19).

Plimpton does not teach

In claim 25, said device being a refrigeration device, said thermochromic layer including thermochromic pigment elements that change color at about +4°C for visually indicating a predetermined desired temperature, and

Claim 26, said backing formed from an aluminum metal plate.

With respect to claim 25: As noted above, Plimpton discloses that his device can be modified to measure temperatures from 15°F to 160°F (i.e., from about -9.4°C to 71.1°C).. Hickens discloses a temperature indicator and teaches that thermochromic pigments can be used to indicate defrosting preferably in the temperature range of 5°C to 7°C (abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device, taught by Plimpton, by replacing the liquid crystal with thermochromic pigment elements, as taught by Hickens, and to include a temperature of about 4°C, as suggested by the teachings of Hickens, in order to use the device as a refrigeration device and in order to increase

Art Unit: 2841

the uses and marketability by the inclusion of measuring temperatures which would monitor refrigerated temperatures to assure that the product, e.g., poultry, does not accidentally defrost.

With respect to claim 26: Plimpton discloses that the backing (30) can be a strip of any suitable material such as plastic (column 3 lines 21-22), that the advertising can be provided on a plate or strip (50), and that the casing can be made from a number of synthetic materials (column 2 lines 20-28). Therefore, the Applicant's limitations regarding the backing being aluminum metal plate and the casing being of polyurethane, absent any criticality, are only considered to be the use of "optimum" or "preferred" materials that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide to make the backing and the casting compound disclosed by Plimpton since they are well known types of materials used to make backings and protective layers respectively and since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention, In re Leshen, 125 USPQ 416. In this case to provide a backing of a suitable material which conducts heat well and a moldable, water impermeable and partially transparent protective layer.

11. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plimpton and Hicken as applied to claims 25-28 above, and further in view of US 6,385,869 to MacWilliams et al.

Plimpton and Hicken teach all that is claimed as discussed in the above rejections of claims 25-28 except for in claim 29 said thermochromic layer provided with an orientation mark

Art Unit: 2841

discernible at room temperature, and in claim 30 said film provided with a complementary mark complementary to said orientation mark of said thermochromic layer.

MacWilliams et al. discloses a label and method for applying wherein the label (700) includes alignment features (703 and 704) having corresponding features on the underlying member (column 6 lines 26-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add an orientation mark and a complementary mark, as taught by MacWilliams et al., to the individual thermochromic portions (20a-k) and the backing in order to assure correct orientation of the portions to the backing, as taught by MacWilliams et al.

Allowable Subject Matter

12. Claims 31-33 and 35-37 are allowable.

13. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related refrigeration devices.

Art Unit: 2841

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251.

The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jinhee Lee can be reached on 571-272-1977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jinhee J Lee/
Supervisory Patent Examiner, Art Unit 2841

/RAS/
May 5, 2010